

Homogeneity and Heterogeneity Among Projective Meanings

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Introduction

Projection is a property of meanings that carry entailments that are entailed not only in basic environments but also in *Family of Sentence* (FoS) environments (Chierchia and McConnell-Ginet 1990).

In the following sentence, (1a) is an assertion, which does not project, while (1b) is a presupposition, which does project.

Projection has been taken to be the standard test to identify presuppositions, but it has come up against two problems in recent literature (see below).

FoS (projection) environments include:

- Negation
- Questions
- Antecedents of Conditionals
- Possibility Modals
- etc.

- (1) John walked the dog.
 a. John walked the dog.
 b. There is a dog (a dog exists)
- (2) John did not walk the dog.
 (3) If John walked the dog, I will not have to.

In the FoS environments in (2) and (3), (1b) but not (1a) is entailed; it *projects*.

Research Questions:

- A. Do projective meanings actually project in FoS environments?
- B. Do both CIs and presuppositions exhibit similar projection behavior?
- C. Do different kinds of CIs and presuppositions differ from one another in expected ways?

Problems

Presuppositions, in addition to being projective, are assumed to be backgrounded or old information with respect to their information structure, and most theories of presupposition try to link these properties (Heim 1982).

There are two main kinds of problems for these theories:

1. Some non-backgrounded meanings project (Simons et al. 2010, inter alia)

For example, Conventional Implicatures (CIs) such as *who is from Texas* in (4) are not backgrounded, but their entailments survive in FoS environments like (5) (Potts 2005).

- (4) Lance, who is from Texas, bikes.
 (5) Lance, who is from Texas, does not bike.

2. Some presuppositions do not project in all FoS environments (Abbott 2006, Abusch 2002, 2010, Simons 2001, Schlenker 2010, inter alia)

Abusch 2010 divides presupposition triggers into two classes: hard and soft triggers. Hard triggers always project, but soft triggers do not.

- Hard:** The cleft *It is/was X that Y* presupposes that there is/was something that does/did Y.
Soft: The factive verb *discover* presupposes that its complement is true.
Soft: The verb *win* (with a preparatory phrase) presupposes that someone participated.

Abusch then claims that in the following FoS environments, the hard trigger in (6) projects but the soft triggers in (7) and (8) do not.

- (6) If it is John who broke the copier, they'll be lenient. (#but I don't know whether anyone broke the copier)
 (7) If Mary discovers that John is in NY, she will be angry. (but I don't know whether John is in NY)
 (8) If Lance wins the Tour de France this year, it will be his 8th victory. (but I don't know whether he will enter)

Methods

6 types of projective meanings tested:

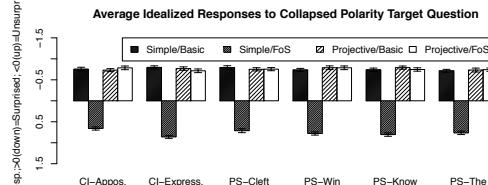
- (i) **Appositives** (Conventional Implicature)
- (ii) **Expletives** (Conventional Implicature)
- (iii) **Clefts** (Presupposition: Hard trigger)
- (iv) **Win** (Presupposition: Soft trigger)
- (v) **Know** (Presupposition: Soft trigger)
- (vi) **The** (Presupposition: Unidentified)

2x2 Factorial design:

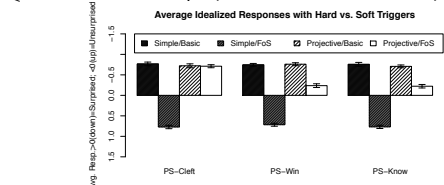
	Basic Environment	Family of Sentences Environment
Non-projective entailment	Someone broke the copier	No one broke the copier
Projective entailment	It was John who broke the copier	It was not John who broke the copier

- Online written survey; each participant sees only one version of each entailment; 53 participants.

Prediction Graph (based on Simons et al.):



Prediction Graph (based on Abusch, others):



After each stimulus, participants saw:

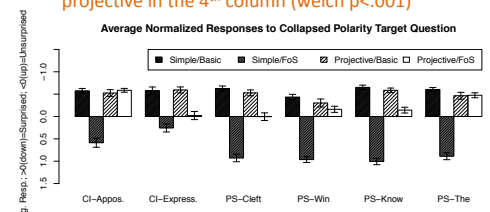
- How surprised would you be to learn that someone broke the copier? (target)
- How surprised would you be to learn that copiers break down an average of once per month?
- How surprised would you be to learn that John has a 9-to-5 job? (2 distractors)

These were balanced for polarity and expected response to use the full range of a 5-point Likert surprise scale.

Results

Statistics are computed over z-normalized scores (collapsing across condition and target question polarity). We find (**surprising**, not surprising):

- Projective meanings project (4th columns greater than zero, p<.001)
- Non-projective meanings don't (2nd columns less than zero, p<.001)
- Projective meanings do not project as much in FoS environments as compared to basic environments (3rd and 4th columns differ, p<.001)
- CIs and presuppositions are equally projective (no significant difference between 4th columns in the first two sets v. the latter four)
- The soft triggers were not significantly different from one another in 4th column projection.
- The hard trigger differed from the two soft triggers in the 4th column significantly, but in the opposite direction of that predicted by Abusch (welch p<.001)
- The differed from both hard and soft in being more projective in the 4th column (welch p<.001)



Selected References

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- Simons, Mandy. 2001. On the conversational basis of some presuppositions. *Proceedings of SALT XI*. Ithaca, NY: CLC Publications.

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